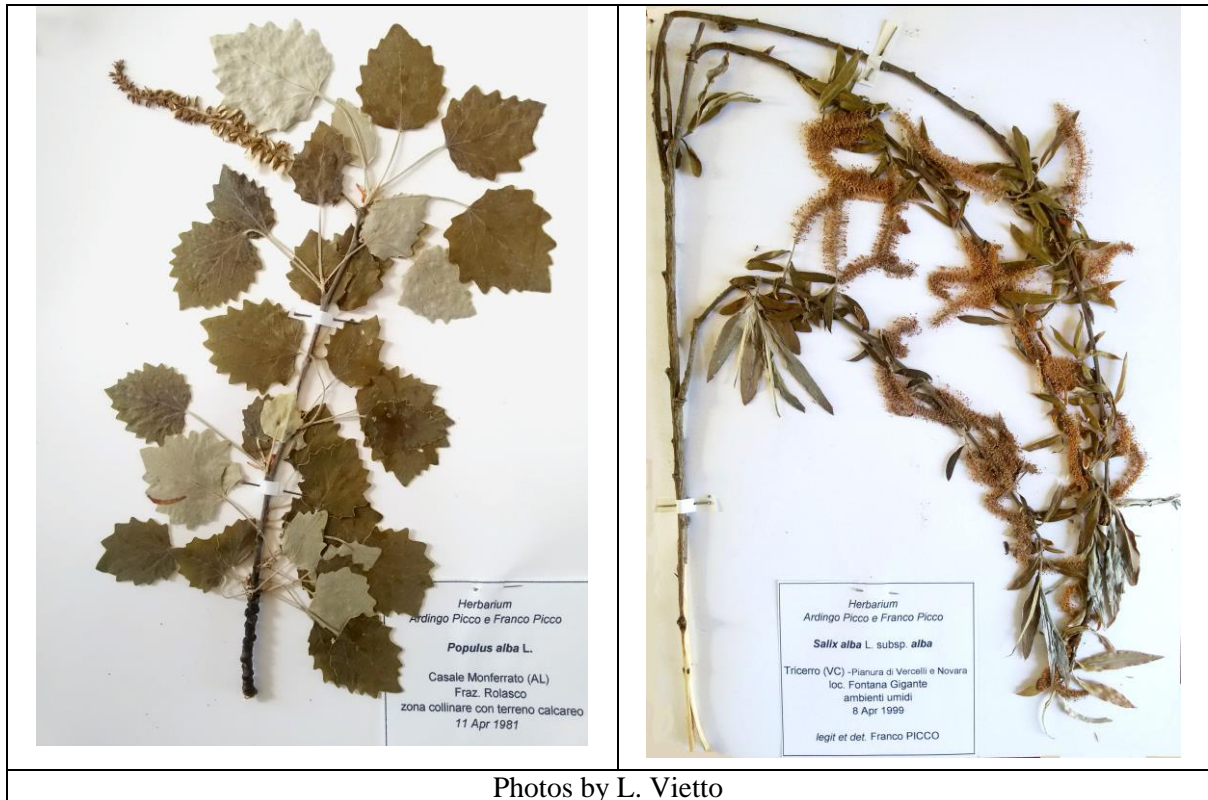


## Preparation of the Standard and Duplicate herbarium specimens for cultivars of *Populus L.* and *Salix L.*



### I. Standard (nomenclatural type).

**Definition:** a specimen or other device to which the name of a cultivar is permanently attached (International Code of Nomenclature for Cultivated Plants (ICNCP) (Brickell *et al.*, 2009).

A **dry specimen** of the cultivar may be recognized as a **standard**. It is desirable that a standard be chosen to demonstrate at least some of the diagnostic characters of the cultivar.

For example, for a poplar cultivar which was developed for biomass production, the **standard** should be collected during mid-summer to demonstrate a foliated branch/branchlet. It is recommended to collect **related sample(s)** from the same individual in spring to demonstrate a branch/branchlet with catkins.

Or, for a willow cultivar with unusual catkins, the **standard** should be prepared during the phenological stage when the distinct characteristics are the most obvious and include a branch/branchlet with catkins. It is recommended to collect a **related sample(s)** from the same specimen during mid-summer to demonstrate a foliated branch/branchlet.

The most complete set of plant characters helps define a plant to which the name of a cultivar is attached. Ideally, in order to catalog the complete set of characters for a plant, it is recommended to prepare a few related samples from the same specimen during various phenological stages:

- during anthesis (flowering)
- during fruiting (for female cultivars)
- branchlets with juvenile (young) foliage
- branchlets with mature foliage
- winter stems with buds

In addition, a small piece of 2-3 year old stem with bark peeled carefully to reveal wood, is useful.

The standards and related specimens will be placed into the cultivar's **standard portfolio** (ICNCP Div. V. 10).

These related samples should be mounted individually on separate sheets. One of these herbarium sheets should be labelled as a **standard** and the rest as the **standard related samples**.

Send the standard and standard related samples to the Royal Horticultural Society Herbarium, Wisley, UK (<https://www.rhs.org.uk/science/conservation-biodiversity/conserving-garden-plants/rhs-herbarium/send-in-a-sample>) using the following address:

The Herbarium  
RHS Garden  
Wisley, Woking,  
Surrey GU236QB  
United Kingdom

When sending the specimens to a herbarium, designate which specimens should be considered as a standard and which should be designated as the standard related sample(s) using "Post-it" notes attached to the herbarium sheets.

## **II. Duplicate.**

**Definition:** A specimen that is a duplicate with the same collection date, number, collector and stage of development as the standard specimen, which can be used as a reference specimen if the standard (type) is lost.

In addition, related specimens from the same individual collected during various phenological stages may be used as references to complement the duplicate specimen.

**Whenever possible, prepare one or more additional herbarium specimen sets (duplicates and related specimens) and send them to your national herbarium and other herbaria designated by the International Code of Nomenclature for Cultivated Plants (Appendix III).**

### **How to prepare Standard and Duplicate dry specimen samples:**

- Collect a representative sample (a branch) which will fit onto a sheet of standard size herbarium paper (29 x 43 cm).
- When collecting, place samples into a plastic bag and label them.
- Then, remove plants from plastic bags and place them onto folded newspapers, which should be placed onto a plant press right away, before plants wilt. When placing the samples onto the plant press, enclose them between blotters, or paper towels, or a few layers of newspapers if blotters are not available, and then apply weight. If a plant press is not available, a load consisting of a few heavy books and kitchen towels may be used instead.
- Dry the specimens in a warm and dry environment (indoor attic) for 10-14 days. Change newspapers between the specimens every day until dry. Do not use excessive heat in order to avoid the loss of leaf glaucescence and/or waxy layers on leaves and stems.
- Prepare a label on a “Post-it” note attached to the newspaper with the enclosed plant. The label should include the following information:
  - Name of the cultivar
  - Accession number
  - Date the specimen was collected
  - Location
  - Origin of the plant
  - Collector’s name

**Mailing the specimens:** Do not mount the specimens onto sheets. Place the plant sample(s) enclosed into folded newspaper between hard surfaces (cardboards) to secure the fragile contents during mailing. Make sure that “Post-it” note labels are attached to each sample. The standard and duplicates will be prepared from your specimens by the herbarium staff according to their own methods for preparation of the herbarium specimens.

The standards will be available via JSTOR in near future (add the link <http://www.jstor.org/>).